Project Update
Spring Valley
Formerly Used Defense Site
Comprehensive Sampling Results and Cleanup Levels
December 4, 2001

On May 31, 2001, the US Army Corps of Engineers implemented its comprehensive sampling plan at the Spring Valley Formerly Used Defense Site (FUDS). This plan, which Baltimore District developed in consultation with its project partners, the EPA Region III and the DC Department of Health, proposed to sample every property within the FUDS boundary for arsenic, with more intensive sampling in selected areas. Since May, the Corps has completed the sampling of over 970 (85%) of the 1,150 private residences within the project boundary. We have also completed sampling of over half of the 375 non-residential lots. The results to date have identified 12.5% of the properties for follow-up grid sampling for arsenic. Testing for the additional contaminants has not found any of concern to date.

Since the first Scientific Advisory Panel meeting last spring, the project partners developed the more intensive sampling protocol used in specific areas. This protocol included testing for point-of-interest (POI)-specific chemicals in addition to arsenic. These POIs were previously identified as the American University Experimental Station (AUES) researchers' specific areas of experimentation or activity. Thus, the partnership felt environmental sampling in these locations warranted a broader list of potential contaminants. Our resulting POI-specific lists of contaminants were published in May and incorporated into the sampling work plan.

Since sampling began, the project partners regularly review the sampling results to identify trends, areas of particular concern, or areas where further sampling is warranted. In general, the sampling has found a higher number of properties requiring additional sampling in the areas we expected. However, we also found the highest levels of arsenic in the Fort Gaines neighborhood, which is located in the land used by Camp Leach, not AUES (but is included within the FUDS referred to as Spring Valley). Camp Leach was a World War I engineer formation and training camp completely distinct from the AUES. In fact, the cluster of properties with the highest arsenic levels is located where over one-thousand Camp Leach soldiers were housed in tents during the 1917-1919 period.

We are now working to complete the sampling in the Fort Gaines area to determine the extent of the arsenic contamination. Current grid sampling results for arsenic in this area reach up to 400 parts per million, which is close to the level found at the American University Child Development Center in January 2001. Plans are currently underway to conduct a Time Critical Removal Action for the properties with exceptionally elevated arsenic levels. At the request of the DC Department of Health,

we have also agreed to test the properties with the highest arsenic levels for additional AUES chemicals and metals. Finally, we have been working with ATSDR to expedite the exposure investigation of residents in these properties.

To date, we have identified over 130 properties/lots for grids sampling, and have already sampled over 50 of them since beginning in September. Given the trigger rate for additional sampling of 12.5%, we expect to have to grid-sample nearly 200 properties. Given the number
of properties involved, there is significant concern in the community, not just over the extent of the arsenic contamination but over the negative effect a major cleanup action will have on the community.

As the project partners began discussing cleanup levels, the EPA requested that the Corps prepare three cleanup options for comment. In its September meeting, the Restoration Advisory Board (RAB) requested that the Corps solicit feedback on the options from the EPA and DC Health and present all the information at the November RAB meeting. The Corps prepared the three remediation goal options discussed below (and in more detail during the presentation to the panel). After review, the EPA and DC Health met in early November and developed a fourth option, which was essentially a variation on one of the Corps' original options.

The Corps' options represent three different approaches to developing a site-wide remediation goal. One option is hazard-based, using the EPA's hazard index (HI) system to identify the arsenic level that represents a HI greater than one (corresponding to an elevated non-cancer hazard). The second option applies our worst-case bioavailability data (50% bioavailable) to the first option, essentially doubling the cleanup level presented in option one. The third option proposes an "across-the-board" cleanup level for all grids exceeding the high end of background. This is obviously the most protective, but it also increases the number of properties affected. The EPA and DC Health favor a modified version of this option. The Corps will cover the specifics of these three options during its presentation to the panel on December 7, 2001.